

REMARKS/ARGUMENTS

Claims 21 - 39 are pending in the application. By the above amendment, claims 1-15 have been cancelled and new claims 21- 39 have been added. Claims 16-20 were previously withdrawn.

New independent claim 21, and dependent claims 22-35, are allowable over the art of record. None of the references previously relied upon by the Examiner, either alone or in combination, teach or suggest a shelter capable of producing electrical energy comprising a canopy defining a sheltered area thereunder, the sheltered area including at least one vehicle parking space; a supporting structure connected to and supporting the canopy and permitting substantially unobstructed access by a vehicle to the sheltered area; a photovoltaic device associated with the canopy, the photovoltaic device being capable of producing an electrical current when exposed to sunlight; and an electrical load operatively connected to the photovoltaic device for utilizing the electricity generated by the photovoltaic device when the photovoltaic device is exposed to light; wherein the shelter has no walls.

In the references previously relied upon, there is no teaching of a shelter without walls for a vehicle parking space, which provides substantially unobstructed access for a vehicle to the sheltered area, as the canopy is supported by one or more structural supports under the canopy and within the sheltered area, thereby obstructing access to vehicles entering and exiting the sheltered area. For example, in the shelter of Dinwoodie (U.S. Pat. Des. 408,554), the two support structures are clearly within the central portion of the canopy sheltered area (see, e.g., Fig. 6). Similarly, the sheltered area under the drive-in canopy of Lane (U.S. Pat. Des. 192,723) is obstructed by support posts (see Fig. 1); moreover, Lane fails to teach or suggest the combination of an unobstructed sheltered area for a vehicle parking space with a photovoltaic device associated with the canopy, as claimed. Saunders (U.S. Pat. Des. 422,668), which discloses the design of a shade canopy, similarly does not teach or suggest the combination of an unobstructed sheltered area for a vehicle parking space with a photovoltaic device associated with the canopy, as claimed.

Laaly et al (U.S. Pat. No. 4,860,509) discloses a roofing membrane which incorporates solar cells, but contains no suggestion to combine such a roofing membrane with an unobstructed sheltered area for a vehicle parking space, as claimed.

Kowalski (U.S. Pat. No. 5,570,000) discloses a solar-powered lighting fixture for illuminating house numbers with a solar panel 60 mounted on the top face 31 of plate member 30 to receive sunlight, and a lamp 40 powered by the solar panel and mounted on the bottom face 32 of plate member 30 to illuminate house numbers. Kowalski does not teach or suggest using a photovoltaic cell on the underside of a canopy for sheltering a parking space and orienting that cell to receive light from an artificial light source on the underside of the canopy, as claimed.

Robbins (U.S. Pat. No. 5,107,637) discloses a transit shelter (i.e., for passengers waiting at a bus stop) with walls. One wall is formed by a pair of spaced-apart panels, and lamps, batteries and related circuits are located between the panels. Robbins does not teach or suggest a shelter without walls which provides a substantially unobstructed sheltered area for a vehicle parking space.

With respect to certain of the dependent claims, Applicant notes the following concerning references previously relied upon by the Examiner.

Claims 26 and 27 are allowable over the cited art of record. Albright et al (US Pat. No. 6,423,894) does not teach or suggest a photovoltaic device being transparent as claimed. Albright merely discloses a photovoltaic cell 102 which has a transparent electrode film 110 through which sunlight passes to reach semiconductor layer 112. Col. 6, lines 19 et seq. There is no suggestion that photovoltaic cell 102 is itself transparent.

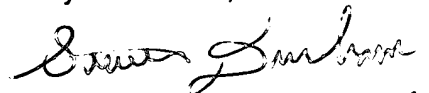
Claims 28 – 32 are allowable over the cited art of record. Pätz et al (US Pat. No. 6,423,894) does not teach or suggest a photovoltaic device directed toward the ground to receive light from an artificial light source. Pätz et al shows multiple adjustable solar elements 22 and a stationary solar element 24, each including a plurality of solar cells 28. The adjustable solar elements 22 lie flat next to one another and the stationary solar element 24 in the working configuration (Figs. 2 and 4), but may be stacked in a compact configuration (Figs. 1 and 3) when not needed. When stacked, some of the

solar elements are "closer to the ground" than others, but they are not "directed toward the ground" as suggested by the examiner. All of the solar elements and solar cells of Pätz et al are directed to receive sunlight, i.e., upward and away from the roof of the vehicle (and the ground).

Similarly, new independent claim 36 and dependent claims 37-39 are allowable over the art of record. None of the references, either alone or in combination, teach or suggest a carport comprising at least one canopy, the canopy sheltering a parking area for at least one vehicle; a supporting structure connected to and supporting the canopy and permitting substantially unobstructed access by a vehicle to the parking area; a photovoltaic device associated with the canopy, the photovoltaic device being capable of producing a DC electrical current when exposed to sunlight; and an electrical load operatively connected to the photovoltaic device for utilizing the electricity generated by the photovoltaic device when the photovoltaic device is exposed to light.

For these reasons, all of the pending claims are allowable over the art of record, and a prompt indication of allowance is requested.

Respectfully submitted,


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